

NOTICE RE: CERTIFICATES OF CORRECTION

DATE : 9-8-01  
 TO : Supervisor, Art Unit 1765  
 SUBJECT : Certificate of Correction Request in Patent No. 6007622

A response to the following question(s) is requested with respect to the accompanying request for a certificate of correction.

- ☒ 1. Would the change(s) requested under 37 CFR 1.323 constitute new matter or require reexamination of the
- ☐ 2. Would the change(s) requested under 37 CFR 1.323 materially affect the scope or meaning of the claims by the examiner in the patent?
- ☐ 3. Applicant disagrees with change(s) initialed and dated by Examiner in lieu of an Examiner's Amendment the change request be granted?
- ☒ 4. With respect to the change(s) requested, correcting Office errors, should the patent read as shown in the of correction? *Should this request be granted?*
- ☐ 5. If the amendment filed \_\_\_\_\_ had been considered by the Examiner, would the amendment have been entered?

PLEASE RESPOND WITHIN 7 DAYS AND RETURN THE FILE TO ROOM 918, PK III

*E. Jones*  
 Legal Instrument Examiner

*Please do not send to Warehouse*

*Thanks*

TO: CERTIFICATE OF CORRECTION BRANCH

DATE:

The decision regarding the change(s) requested in the certificate of correction is shown below.

- |                                 |                             |   |
|---------------------------------|-----------------------------|---|
| <input type="checkbox"/> 1. YES | <input type="checkbox"/> NO | <input type="checkbox"/> Comments below |
| <input type="checkbox"/> 2. YES | <input type="checkbox"/> NO | <input type="checkbox"/> Comments below |
| <input type="checkbox"/> 3. YES | <input type="checkbox"/> NO | <input type="checkbox"/> Comments below |
| <input type="checkbox"/> 4. YES | <input type="checkbox"/> NO | <input type="checkbox"/> Comments below |
| <input type="checkbox"/> 5. YES | <input type="checkbox"/> NO | <input type="checkbox"/> Comments below |

**PUBLISH**

☐ Comments \_\_\_\_\_

*Approved*

Olik Chaudhuri  
 Supervisory Patent Examiner  
 Technology Center 2800

Supervisor

Art Unit

U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,007,622  
DATED : December 28, 1999  
INVENTOR(S) : Kawase et al.

Page 1 of 7

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page.

Item [57] ABSTRACT.

Line 8, after "crucible" insert -- within an airtight vessel formed of a --;

Column 1.

Line 7, after "crystal" replace ". Particularly," by -- , and particularly a carbon-doped --;

Lines 8, 10 and 15, cancel the entire line;

Line 9, after "crystal" replace "in which" by -- . --;

Line 12, after "prior" replace "arts as set forth in" by -- art --;

Line 13, replace the line to read: -- methods for preparing a carbon-doped group --;

Line 14, after "crystal" replace "in which carbon is" by -- , as set forth in the following described publications. --;

Line 16, before "Japanese" delete "In";

Line 17, after "hereinafter)" replace "," by -- discloses --;

Line 19, after "method)", insert -- . --;

Line 20, please cancel the entire line;

**Delete the paragraph spacing between lines 20 and 21;**

Line 21, **delete the indentation;**

**Delete the paragraph spacing between lines 22 and 23;**

Line 23, (actual line count) **delete the indentation;**

Line 34, (actual line count), after "in" insert -- the formation of --, after "like" replace "to be" by -- which is --;

**Delete the paragraph spacing between lines 35 and 36 (actual line count);**

Line 36, **delete the indentation;**

Line 40, before "Journal" replace "In" by -- The --;

Line 42, after "hereinafter)" replace "," by -- discloses --;

Line 44, after "method)" delete "is disclosed";

**Delete the paragraph spacing between lines 44 and 45;**

Line 45, **delete the indentation;**

**Delete the paragraph spacing between lines 46 and 47;**

Line 47, **delete the indentation,** after "62" replace "having" by -- which has --; after "doped" insert -- therein --;

Line 48, after "advance," insert -- and which was --, after "method" insert -- , --;

Line 55(actual line counter), after "containing" insert -- 200ppm of --, after "water" delete "of 200ppm";

**Delete the paragraph between cols. 1 and 2;**

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,007,622  
DATED : December 28, 1999  
INVENTOR(S) : Kawase et al.

Page 2 of 7

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 2,

Line 1, delete the indentation, before "U.S." delete "In";  
Line 2, after "hereinafter" replace "," by -- dis-closes --, after "preparing" insert -- a --;  
Line 3, after "method insert -- . --;  
Line 4, cancel the entire line;  
**Delete the paragraph spacing between lines 4 and 5;**  
Line 5, **delete the indentation;** after "preparing" insert -- a --;  
**Delete the paragraph spacing between lines 14 and 15;**  
Line 21, (actual line count), **delete the paragraph spacing between lines 21 and 22;**  
Line 22, **delete the indentation;**  
Line 28, after "preparing" insert -- the same. --;  
Line 29, before "This", delete "thereof";  
Line 30, after "contained", replace "having" by -- in --;  
Line 34, after "concentration" delete "of";  
Line 36, after "art" insert -- methods --;  
Line 42, after "since" insert -- a --;  
Line 45, after "oxygen," replace "that" by -- which --;  
Line 47, after "gas." replace "There was" by -- As a result, there is --;  
Line 63, after "preparing" replace "in" by -- , with --;  
Line 64, after "ibility" insert -- , --, after "a" insert -- carbon-doped --; after crystal,  
replace "of" by -- having --;  
Line 65, after characteristics" insert -- and --;  
Line 66, after "removed" insert -- therefrom --, before "in" delete "and";

Column 3,

Line 1, before "aspect" replace "According to an" by -- One --, after "invention" replace  
", " by -- provides --;  
Line 2, after "crystal", insert -- . --;  
Line 3, before "This", delete "is provided".  
Line 4, after "doped" insert -- therein --;  
Lines 9 and 11, after "compound" insert -- raw --;  
Line 20, after "the" insert -- initial --;  
Line 21, after "doped" insert -- into the material --;  
Line 23, after "obtained" replace "in" by -- with --;  
Line 30, after "Preferably," insert -- the --;  
**Delete the paragraph spacing between lines 30 and 31;**

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,007,622  
DATED : December 28, 1999  
INVENTOR(S) : Kawase et al.

Page 3 of 7

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Line 31, **delete the indentation;**

Line 34, **delete the paragraph spacing between lines 35 and 36;**

Line 36, before "oxide", replace "Boron" by -- The boron -- after "contains" delete "water of"; after "ppm" replace "." by -- of water. --;

Line 38, after "filled" insert -- into the crucible --; after "carbon" insert -- to be --;

Line 39, **delete the paragraph spacing between lines 39 and 40;**

Line 42, after "Furthermore," insert -- an additional amount of carbon must be supplied to make up for the --, after "of" (**first occurrence**) delete "the";

Line 43, after "carbon" (**first occurrence**) replace "at the" by -- in --, after "compound", replace "must" by --. --;

Line 44, before "Thus," delete "must be supplied.";

Line 47, **delete the paragraph spacing between lines 46 and 47;**

Line 52, **delete the paragraph spacing between lines 52 and 53;**

Line 53, **delete the indentation;** after "process," replace "the" by -- any --, after "in" insert -- the --;

Line 54, **delete the paragraph spacing between lines 54 and 55;**

Line 55, **delete the indentation,** after "applying" replace "a" by -- the --, after "treatment" replace "on" by -- to the --;

Line 63, before "change" insert -- further --;

Column 4.

**Delete the paragraph spacing between lines 3 and 4;**

Line 4, **delete the indentation;**

Line 12, after "those" insert -- samples --;

Line 25, after "little" insert -- further --;

**Delete the paragraph spacing between lines 31 and 32;**

Line 32, **delete the indentation;**

Line 38, (actual line count), after "like" insert -- , --, before "powder" delete "used", after "powder" insert -- being used --;

**Delete the paragraph spacing between lines 41 and 42 (actual line count);**

Line 43, **delete the indentation;**

Line 46, (actual line count), after "oxide" insert -- which is --;

Line 47, (actual line count), after "state" replace "where" by -- in which --;

**Delete the paragraph spacing between lines 49 and 50 (actual line count);**

Line 50, **delete the indentation;**

**Delete the paragraph spacing between lines 58 and 59 (actual line count);**

Line 59, **delete the indentation;**

UNITED STATES PATENT AND TRADEMARK OFFICE  
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PATENT NO. : 6,007,622  
DATED : December 28, 1999  
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Page 4 of 7

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**Delete the paragraph spacing between lines 61 and 62, (actual line count);**  
Line 62, **delete the indentation;** after "in" insert -- the --;  
Line 63, (actual line count), after "oxide" replace "that" by -- which --, after "state" replace "where" by -- in which --;  
Line 65, (actual line count), after "above" insert -- the --, after "oxide", replace "to" by -- and thereby --;

Column 5,

Line 1, before "solid" insert -- the --;  
**Delete the paragraph spacing between lines 2 and 3;**  
Line 3, **delete the indentation;**  
**Delete the paragraph spacing between lines 12 and 13;**  
Line 13, **delete the indentation;**  
**Delete the paragraph spacing between lines 17 and 18;**  
Line 18, **delete the indentation;**  
**Delete the paragraph spacing between lines 23 and 24;**  
Line 23, **delete the indentation;** after "constituent" replace "element" by -- elements --;  
Line 25, after "crucible" replace "to induce" by -- and induces --;  
Lines 52, 56 and 59, after "semiconductor", delete "crys-";  
Lines 53, 57 and 60, before "single", delete "tal";  
Line 61, before "DESCRIPTION" insert -- DETAILED --;  
**Delete the paragraph spacing between Col. 5, line 67 and Col. 6, line 1;**

Column 6,

Line 1, **delete the indentation;**  
Line 2, after "powder 13" insert -- which has been --;  
Line 3, after "4" insert -- forming a boron oxide layer 4b and a boron oxide film 4a as described below --;  
Line 4, after "crystal" insert -- 7 --;  
Line 6, after "crucible 1," replace "arrangement was provided so" by -- the materials were so arranged --;  
Line 31, after "heater "8" replace "using" by -- in --;  
**Delete the paragraph spacing between lines 31 and 32;**  
Line 32, **delete the indentation;**  
**Delete the paragraph spacing between lines 34 and 35;**  
Line 35, **delete the indentation;**  
Line 38, after "melt 2" delete ". The";

UNITED STATES PATENT AND TRADEMARK OFFICE  
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PATENT NO. : 6,007,622  
DATED : December 28, 1999  
INVENTOR(S) : Kawase et al.

Page 5 of 7

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Line 39, before "boron", replace "thickness of the" by -- as a --, after "4b" delete "covering the upper";  
Line 40, before "approximately" replace "surface of GaAs melt 2 was" by -- having a thickness of --;  
Line 41, after "4b" replace "." by --, as shown also in Fig. 1. --;  
Line 42, after "was" replace "kept" by -- maintained --;  
**Delete the paragraph spacing between lines 43 and 44 (actual line count);**  
Line 44, (actual line count), **delete the indentation;**  
Line 47, (actual line count), after "crystal" replace "is" by -- are --;  
Table 2, line 2, after "crystal" replace "corresponds" by -- correspond --;  
**Delete the paragraph spacing between lines 65 and 66;**  
Line 66, **delete the indentation;**

Column 7,

**Delete the paragraph spacing between lines 14 and 15;**  
Line 15, **delete the indentation;**  
Line 17, after "oxide 4" insert -- forming a boron oxide layer 4b and a boron oxide film 4a as described below --;  
Line 19, after "crucible 1," delete "arrangement";  
Line 20, before "so" replace "was provided" by -- the materials were arranged --;  
**Delete the paragraph spacing between lines 24 and 25;**  
Line 25, **delete the indentation;**  
**Delete the paragraph spacing between lines 27 and 28;**  
Line 28, **delete the indentation;**  
Line 44, after "heater 8" replace "using" by -- in --;  
**Delete the paragraph spacing between lines 45 and 46;**  
Line 46, **delete the indentation;**  
**Delete the paragraph spacing between lines 49 and 50;**  
Line 50, **delete the indentation;**  
Line 53, after "melt" replace ". This" by -- 2 as a --;  
Line 54, replace the line to read: -- oxide layer 4b --;  
Line 55, before "approximately" replace "was" by -- having a thickness of --;  
Line 60, after "was" replace "kept" by -- maintained --;  
**Delete the paragraph spacing between lines 61 and 62;**  
Line 62, **delete the indentation;**

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,007,622  
DATED : December 28, 1999  
INVENTOR(S) : Kawase et al.

Page 6 of 7

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 8,

**Delete the paragraph spacing between lines 15 and 16;**  
Line 16, delete the indentation, after "experiment" replace "are" by -- were --;  
**Delete the paragraph spacing between lines 18 and 19;**  
Line 19, delete the indentation;  
**Delete the paragraph spacing between lines 35 and 36;**  
Line 36, delete the indentation, after "conditions" replace "are" by -- were --;  
**Delete the paragraph spacing between lines 37 and 38;**  
Line 38, delete the indentation;  
**Delete the paragraph spacing between lines 60 and 61;**  
Line 61, delete the indentation;  
Line 64, after "oxide 4" insert -- that will form a boron oxide layer 4b and a boron oxide film 4a as described below --;  
Line 66, before "so" replace "arrangement was provided" by -- the materials were arranged --;

Column 9,

**Delete the paragraph spacing between lines 6 and 7;**  
Line 7, delete the indentation, after "of" replace "example 4" by -- example 5 --;  
Line 22, after "heater 8" replace "using" by -- in a --;  
**Delete the paragraph spacing between lines 23 and 24;**  
Line 24, delete the indentation;  
**Delete the paragraph spacing between lines 26 and 27;**  
Line 27, delete the indentation;  
Line 30, after "melt 2" replace ". The thickness of the" by -- as a --;  
Line 31, replace the line to read: -- oxide layer 4b --;  
Line 32, before "approximately" replace "was" by -- having a thickness of --;  
Line 36, after "was" replace "kept" by -- maintained --;  
**Delete the paragraph spacing between lines 37 and 38;**  
Line 38, delete the indentation;

Column 10,

Line 2, after "upon" replace "difference" by -- differences --;  
Line 47, before "material," replace "Law" by -- raw --;

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,007,622  
DATED : December 28, 1999  
INVENTOR(S) : Kawase et al.

Page 7 of 7

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 11,

Line 42, after "powder", delete "solid";

Column 12,

Line 3, after "fiber", delete "solid".

Signed and Sealed this

Twenty-seventh day of November, 2001

Attest:

*Nicholas P. Godici*

Attesting Officer

NICHOLAS P. GODICI

Acting Director of the United States Patent and Trademark Office



# UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

**PATENT NO. : 6,007,622**

**DATED : Dec. 28, 1999**

**INVENTOR(S) : Kawase et al.**

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title Page, under [57] ABSTRACT:

line 8, after "crucible" insert --within an airtight vessel formed of a--;

Col. 1, line 7, after "crystal" replace ". Particularly," by --, and particularly a carbon-doped--;

line 8, cancel the entire line;

line 9, after "crystal" replace "in which" by --.---;

line 10, cancel the entire line;

line 12, after "prior" replace "arts as set forth in" by --art--;

line 13, replace the line to read: --methods for preparing a carbon-doped group--;

line 14, after "crystal" replace "in which carbon is" by --, as set forth in the following described publications.--;

line 15, cancel the entire line;

line 16, before "Japanese" delete "In";

line 17, after "hereinafter)" replace ", " by --discloses--;

line 19, after "method)", insert --.---;

line 20, please cancel the entire line;

**delete the paragraph spacing between lines 20 and 21;**

**line 21, delete the indentation;**

**delete the paragraph spacing between lines 22 and 23;**

**line 23, (actual line count) delete the indentation.**

**line 34, (actual line count), after "in" insert --the formation of--, after "like" replace "to be" by --which is--;**

**delete the paragraph spacing between lines 35 and 36 (actual line count);**

**line 36, delete the indentation;**

- page 1 of 10 -

ADDRESS OF SENDER:

FASSE PATENT ATTORNEYS, P.A.  
INDIAN POND LANE  
P. O. BOX K  
ST. ALBANS, ME 04971

PATENT NO. 6,007,622

**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**

**PATENT NO. : 6,007,622****DATED : December 28, 1999****INVENTOR(S) : Kawase et al.**

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 1, line 40, before "Journal" replace "In" by --The--;  
line 42, after "hereinafter)" replace "," by  
--discloses--;  
line 44, after "method)" delete "is disclosed";  
**delete the paragraph spacing between lines 44 and 45**  
line 45, **delete the indentation;**  
**delete the paragraph spacing between lines 46 and 47;**  
line 47, **delete the indentation,** after "62" replace  
"having" by --which has--; after "doped"  
insert --therein--,  
line 48, after "advance," insert --and which was--,  
after "method" insert --,--;  
line 55, (actual line counter), after "containing"  
insert --200ppm of--, after "water" delete "of  
200ppm";  
**delete the paragraph between cols. 1 and 2;**  
Col. 2, line 1, delete the indentation, before "U.S." delete  
"In";  
line 2, after "hereinafter)" replace "," by --dis-  
closes--, after "preparing" insert --a--;  
line 3, after "method" insert --.---;  
line 4, cancel the entire line;  
**delete the paragraph spacing between lines 4 and 5;**  
line 5, **delete the indentation;** after "preparing"  
insert --a--;  
**delete the paragraph spacing between lines 14 and 15;**  
line 21, (actual line count), **delete the paragraph  
spacing between lines 21 and 22;**

- page 2 of 10 -

ADDRESS OF SENDER:

FASSE PATENT ATTORNEYS, P.A.  
INDIAN POND LANE  
P. O. BOX K  
ST. ALBANS, ME 04971

PATENT NO. 6,007,622

# UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

**PATENT NO. : 6,007,622**

**DATED : December 28, 1999**

**INVENTOR(S) : Kawase et al.**

**It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:**

Col. 2, line 22, delete the indentation;  
 line 28, after "preparing" insert --the same.--;  
 line 29, before "This", delete "thereof.--";  
 line 30, after "contained", replace "having" by --in--;  
 line 34, after "concentration" delete "of";  
 line 36, after "art" insert --methods--;  
 line 42, after "since" insert --a--;  
 line 45, after "oxygen," replace "that" by --which--;  
 line 47, after "gas." replace "There was" by --As a result, there is--.  
 line 63, after "preparing" replace "in" by --, with--;  
 line 64, after "ibility" insert --,--, after "a" insert --carbon-doped--; after crystal, replace "of" by --having--,  
 line 65, after "characteristics" insert --and--;  
 line 66, after "removed" insert --therefrom--, before "in" delete "and";  
 Col. 3, line 1, before "aspect" replace "According to an" by --One--, after "invention" replace "," by --provides--;  
 line 2, after "crystal", insert --.---;  
 line 3, before "This", delete "is provided"; ← .  
 line 4, after "doped" insert --therein--;  
 line 9, after "compound" insert --raw--;  
 line 11, after "compound" insert --raw--.  
 line 20, after "the" insert --initial--;  
 line 21, after "doped" insert --into the material--;  
 line 23, after "obtained" replace "in" by --with--;  
 line 30, after "Preferably," insert --the--;  
 delete the paragraph spacing between lines 30 and 31;

- page 3 of 10 -

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**FASSE PATENT ATTORNEYS, P.A.  
 INDIAN POND LANE  
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**PATENT NO. 6,007,622**

# UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

**PATENT NO. : 6,007,622**

**DATED : December 28, 1999**

**INVENTOR(S) : Kawase et al.**

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 3, line 31, delete the indentation;  
 line 34, delete the paragraph spacing between lines 35 and 36;  
 line 36, before "oxide", replace "Boron" by --The boron-- after "contains" delete "water of";  
 after "ppm" replace "." by --of water.--.  
 line 38, after "filled" insert --into the crucible--;  
 after "carbon" insert --to be--;  
 line 39, delete the paragraph spacing between lines 39 and 40;  
 line 42, after "Furthermore," insert --an additional amount of carbon must be supplied to make up for the--, after "of" (first occurrence) delete "the";  
 line 43, after "carbon" (first occurrence) replace "at the" by --in--, after "compound", replace "must" by --.--;  
 line 44, before "Thus," delete "must be supplied.--";  
 line 47, delete the paragraph spacing between lines 46 and 47;  
 line 52, delete the paragraph spacing between lines 52 and 53;  
 line 53, delete the indentation; after "process," replace "the" by --any--, after "in" insert --the--;  
 line 54, delete the paragraph spacing between lines 54 and 55;  
 line 55, delete the indentation, after "applying" replace "a" by --the--, after "treatment" replace "on" by --to the--.  
 line 63, before "change" insert --further--;

- page 4 of 10 -

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PATENT NO. 6,007,622

**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION****PATENT NO. : 6,007,622****DATED : December 28, 1999****INVENTOR(S) : Kawase et al.**

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 4, delete the paragraph spacing between lines 3 and 4;  
line 4, delete the indentation;  
line 12, after "those" insert --samples--.  
line 25, after "little" insert --further--;  
delete the paragraph spacing between lines 31 and 32;  
line 32, delete the indentation;  
line 38, (actual line count), after "like" insert --,--, before "powder" delete "used", after "powder" insert --being used--;  
delete the paragraph spacing between lines 41 and 42 (actual line count);  
line 43, delete the indentation.  
line 46, (actual line count), after "oxide" insert --which is--;  
line 47, (actual line count), after "state" replace "where" by --in which--;  
delete the paragraph spacing between lines 49 and 50 (actual line count);  
line 8,  
line 50, delete the indentation;  
delete the paragraph spacing between lines 58 and 59 (actual line count);  
line 59, delete the indentation;  
delete the paragraph spacing between lines 61 and 62, (actual line count);  
line 62, delete the indentation; after "in" insert --the--;  
line 63, (actual line count), after "oxide" replace "that" by --which--, after "state" replace "where" by --in which--;  
line 65, (actual line count), after "above" insert --the--, after "oxide", replace "to" by --and thereby--;

- page 5 of 10 -

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FASSE PATENT ATTORNEYS, P.A.  
INDIAN POND LANE  
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ST. ALBANS, ME 04971

PATENT NO. 6,007,622

# UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

**PATENT NO. : 6,007,622**

**DATED : December 28, 1999**

**INVENTOR(S) : Kawase et al.**

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 5, line 1, before "solid" insert --the--;  
 delete the paragraph spacing between lines 2 and 3;  
 line 3, delete the indentation;  
 delete the paragraph spacing between lines 12 and 13;  
 line 13, delete the indentation;  
 delete the paragraph spacing between lines 17 and 18;  
 line 18, delete the indentation;  
 delete the paragraph spacing between lines 23 and 24;  
 line 23, delete the indentation; after "constituent"  
     replace "element" by --elements--;  
 line 25, after "crucible" replace "to induce" by  
     --and induces--.  
 line 52, after "semiconductor", delete "crys-";  
 line 53, before "single", delete "tal";  
 line 56, after "semiconductor", delete "crys-";  
 line 57, before "single", delete "tal";  
 line 59, after "semiconductor", delete "crys-";  
 line 60, before "single", delete "tal";  
 line 61, before "DESCRIPTION" insert --DETAILED--;  
 delete the paragraph spacing between Col. 5, line 67  
 and Col. 6, line 1;  
 Col. 6, line 1, delete the indentation;  
 line 2, after "powder 13" insert --which has been--;  
 line 3, after "4" insert --forming a boron oxide  
     layer 4b and a boron oxide film 4a as  
     described below--;  
 line 4, after "crystal" insert --7--;  
 line 6, after "crucible 1," replace "arrangement was  
     provided so" by --the materials were so  
     arranged--.

- page 6 of 10 -

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**DATED : December 28, 1999**

**INVENTOR(S) : Kawase et al.**

**It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:**

Col. 6, line 31, after "heater 8" replace "using" by --in--;  
**delete the paragraph spacing between lines 31 and 32;**  
 line 32, **delete the indentation;**  
**delete the paragraph spacing between lines 34 and 35;**  
 line 35, **delete the indentation.**  
 line 38, after "melt 2" delete ". The";  
 line 39, before "boron", replace "thickness of the" by  
 --as a--, after "4b" delete "covering the  
 upper";  
 line 40, before "approximately" replace  
 "surface of GaAs melt 2 was" by --having a  
 thickness of--;  
 line 41, after "4b" replace "." by --, as shown also  
 in Fig. 1.--;  
 line 42, after "was" replace "kept" by  
 --maintained--;  
**delete the paragraph spacing between lines 43 and 44**  
 (actual line count);  
 line 44, (actual line count), **delete the indentation;**  
 line 47, (actual line count), after "crystal" replace  
 "is" by --are--;  
 following Table 2, line 2, after "crystal" replace  
 "corresponds" by --correspond--.  
**delete the paragraph spacing between lines 65 and 66;**  
 line 66, **delete the indentation;**  
 Col. 7, **delete the paragraph spacing between lines 14 and 15;**  
 line 15, **delete the indentation;**  
 line 17, after "oxide 4" insert --forming a boron  
 oxide layer 4b and a boron oxide film 4a as  
 described below--;

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**ADDRESS OF SENDER:** FASSE PATENT ATTORNEYS, P.A.      **PATENT NO. 6,007,622**  
 INDIAN POND LANE  
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 ST. ALBANS, ME 04971

**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION****PATENT NO. : 6,007,622****DATED : December 28, 1999****INVENTOR(S) : Kawase et al.**

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 7, line 19, after "crucible 1," delete "arrangement"  
line 20, before "so", replace "was provided" by  
--the materials were arranged--;  
delete the paragraph spacing between lines 24 and 25;  
line 25, delete the indentation;  
delete the paragraph spacing between lines 27 and 28;  
line 28, delete the indentation;  
line 44, after "heater 8" replace "using" by --in--;  
delete the paragraph spacing between lines 45 and 46;  
line 46, delete the indentation;  
delete the paragraph spacing between lines 49 and 50;  
line 50, delete the indentation;  
line 53, after "melt" replace ". This" by  
--2 as a--;  
line 54, replace the line to read: --oxide  
layer 4b--;  
line 55, before "approximately" replace "was" by  
--having a thickness of--;  
line 60, after "was" replace "kept" by  
--maintained--;  
delete the paragraph spacing between lines 61 and 62;  
line 62, delete the indentation;  
Col. 8, delete the paragraph spacing between lines 15 and 16;  
line 16, delete the indentation, after "experiment"  
replace "are" by --were--;  
delete the paragraph spacing between lines 18 and 19;  
line 19, delete the indentation;  
delete the paragraph spacing between lines 35 and 36;  
line 36, delete the indentation, after "conditions"  
replace "are" by --were--;  
delete the paragraph spacing between lines 37 and 38;  
line 38, delete the indentation.

- page 8 of 10 -

**ADDRESS OF SENDER:**

FASSE PATENT ATTORNEYS, P.A.  
INDIAN POND LANE  
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ST. ALBANS, ME 04971

**PATENT NO. 6,007,622**



# UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

**PATENT NO. : 6,007,622**

**DATED : December 28, 1999**

**INVENTOR(S) : Kawase et al.**

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- Col. 8, delete the paragraph spacing between lines 60 and 61;  
 line 61, delete the indentation;  
 line 64, after "oxide 4" insert --that will form a boron oxide layer 4b and a boron oxide film 4a as described below--;  
 line 66, before "so" replace "arrangement was provided" by --the materials were arranged--;
- Col. 9, delete the paragraph spacing between lines 6 and 7;  
 line 7, delete the indentation, after "of" replace "example 4" by --example 5--.  
 line 22, after "heater 8" replace "using" by --in a--;  
 delete the paragraph spacing between lines 23 and 24;  
 line 24, delete the indentation;  
 delete the paragraph spacing between lines 26 and 27;  
 line 27, delete the indentation;  
 line 30, after "melt 2" replace ". The thickness of the" by --as a--;  
 line 31, replace the line to read: --oxide layer 4b--;  
 line 32, before "approximately" replace "was" by --having a thickness of--;  
 line 36, after "was" replace "kept" by --maintained--;  
 delete the paragraph spacing between lines 37 and 38;  
 line 38, delete the indentation.
- Col.10, line 2, after "upon" replace "difference" by --differences--;  
 line 47, before "material,", replace "Law" by --raw--;

- page 9 of 10 -

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PATENT NO. 6,007,622

**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**

**PATENT NO. : 6,007,622**

**DATED : December 28, 1999**

**INVENTOR(S) : Kawase et al.**

**It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:**

Col. 11, line 42, after "powder", delete "solid";  
Col. 12, line 3, after "fiber", delete "solid".

- page 10 of 10 -

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**PATENT NO.: 6,007,622**